Albuquerque Bernalillo County
Water Utility Authority

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June 22, 2018

Ms. Evelyn Rosborough
U.S. Environmental Protection Agency
NPDES Management Section (6WQ-PO)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Via Electronic Mail and USPS

Re: Comments on Proposed Permit NM0022250

Dear Ms. Rosborough:

The Albuquerque Bernalillo County Water Utility Authority (Water Authority) has received the proposed 2018 National Pollutant Discharge Elimination System (NPDES) permit for the Southside Water Reclamation Plant (SWRP) and appreciates the opportunity to comment. We would like to thank the U.S. Environmental Protection Agency (EPA) staff for meeting and discussing the proposed permit and extending the comment period to allow the Water Authority to thoroughly examine the new proposed permit requirements. In addition, we would like to acknowledge the EPA's efforts to prepare the proposed permit including the changes to the pH monitoring requirement and removal of the monitoring requirement for arsenic.

The Water Authority, however, is concerned that in a few but very important areas of the proposed permit there are some significant additions that result from unjustified changes in legal interpretations. In addition, there also appear to be some misunderstandings around Water Authority operations or the operations of others in this section of the Rio Grande. Thus the Water Authority has provided written comments (see attached) as well as this letter, to bring to your attention those areas of concern and welcomes the opportunity to discuss these critical matters with EPA Region 6. We would be willing to meet in person to discuss our concerns with EPA staff if you feel that it would be helpful.

EPA has been inconsistent in implementing Pueblo of Isleta Water Quality Standards (PIWQS) in the three most recent permit cycles (2005, 2012 and proposed 2018) pertaining to critical low flows, mercury criteria and the narrative standards.

Although the PIWQS have not changed, EPA has changed the critical low flow used to calculate water quality based effluent limitations with each permit. PIWQS Section I.H states: "Criteria specific to a designated use shall be protected at all times and at all flow rates." The terms "all times and at all flow rates" are not defined in the PIWQS and the Pueblo of Isleta does not have implementation procedures to describe how that standard is to be implemented. EPA specified critical low flows of zero cubic feet per second (cfs) in 2005 and the four consecutive day low flow within a three year period or "4Q3" in 2012[1]. With the current proposed permit, EPA reinterprets the Pueblo's standard and proposes to use 53 cfs as the single day low flow without any legal basis for that reinterpretation. In the current proposed permit the PIWQS "all flows"

[1] See Section V.C.5 of July 24, 2011 EPA Fact Sheet, page 11 of 24 and Appendix 4 of the 2011 Fact Sheet.

differs from all prior interpretation, and is used to mean the isolated one-time lowest flow, with no presented statistical or scientific basis.

The conditions of and the operations on this segment of the Rio Grande (the "Middle Rio Grande") are complex. In 2005, EPA acknowledged the specific circumstances of this stretch of the River as being "...the highly modified nature of the Rio Grande above the effluent discharge point including the segregation of irrigation return flows to the irrigation canals creating an irrigation season deficit for flows to the river and the upstream impoundment of the Rio Grande at the Cochiti Reservoir and the management of releases from this impoundment."[2] In 2018, although the specific circumstances haven't changed, EPA proposes to include a critical low flow that is based on another interpretation of the PIWQS.

Understanding how the river operates is necessary to determine the appropriate critical low flow. Based on the combined river and irrigation canal network and the actual river operations in 2013, the critical low flow EPA proposes to use is not representative of the total flow realized by the Pueblo of Isleta. (See attached June 22, 2018 technical memo from Jacobs Engineering Group Inc.). Examining the water operations for the day in which the critical low flow event occurred in 2013 revealed that the Middle Rio Grande Conservancy District (MRGCD) diverted a significant quantity of water from the Rio Grande into the irrigation canal system upstream of Albuquerque at the Angostura diversion. That water was conveyed in the irrigation system, outside of the Rio Grande, to reduce losses. A large part of that water was returned to the river just upstream of the Isleta Diversion dam. In other words, the river system was operated in such a way as to reduce flows in the Rio Grande channel for the benefit of irrigators including the Pueblo of Isleta.

The complex system of irrigation canals reroutes flow to the Rio Grande below the Isleta Border therefore a higher value is justified. In addition, with the inherent uncertainty[3] with measuring low flow in systems such as the Middle Rio Grande, a single day low flow is not appropriate. The Water Authority strongly encourages the EPA to consider revising the critical low flow value to a more statistically valid flow such as the commonly used 4Q3.

Secondly, EPA has chosen to implement a different criterion for mercury in the proposed permit to protect wildlife usage. However, it is not clear why EPA chooses to implement that criterion at this point in time as it has been contained in the standards since 2002, but has not been implemented in any of the previous permits. There is no justification to implement this criterion at this time. Furthermore, according to the record for adoption of the PIWQS, the actual criterion was supposed to match the Great Lakes Water Quality Initiative criterion (0.0013 ug/L) specified in 40 CFR 132. The number in the PIWQS is 0.0011 ug/L and therefore is not valid. Since this value is in error, the PIWQS should be corrected and this criterion should not be implemented in this permit at this time. As discussed in our comments, the Water Authority is willing to work with EPA to conduct a study for sources of mercury in the watershed and within the Water Authority's collection system in order to continue on the path of source reduction.

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[2] From page 7 of EPA's March 31, 2005 final permit decision and response to comments document (Response #18, 2nd paragraph)

[3] The USGS gage readings for the 2013 low flow event were estimated values due to the uncertainty under those conditions.

Thirdly, the PIWQS contains (and has contained) a narrative standard regarding salinity parameters (Total Dissolved Solids (TDS), chlorides and sulfates – see PIWQS Section III.K). This standard is based on interference with the designated or attainable uses for a water body. If interference is determined, then a restriction on increases over naturally-occurring levels is applicable. Again, EPA has for the first time chosen to impose limitations based on the narrative standard, although that language has been included in the PIWQS since 2002. The PIWQS do not contain definitions for the various terms. Neither the Pueblo of Isleta nor EPA has yet developed, much less promulgated, any implementation procedures for consistent implementation of the general standard. In addition, EPA has demonstrated neither that an excursion of the general standard has occurred nor that there is reasonable potential for an excursion to occur due to the SWRP discharge.

Lastly, along with the inconsistent application of PIWQS in the SWRP permits, EPA has not consistently applied the PIWQS to other dischargers to the Middle Rio Grande. The closest NPDES dischargers to the SWRP discharge are the Municipal Separate Storm Sewer System (MS4) permit, PNM Rio Bravo Power Plant and the Rio Rancho WWTP #2. Neither the MS4 general permit nor the permit for the PNM Rio Bravo Power Plant contain limitations for mercury or salinity parameters. The Rio Rancho WWTP #2 discharge permit contains limitations for TDS but no limits for chlorides, sulfate, or mercury.

These inconsistencies may be due to different permit writers, but the inconsistencies are not justified. It is premature to implement the above changes as proposed by EPA without the appropriate implementation procedures.

The Water Authority is of the understanding that the Pueblo of Isleta is about to reconsider their water quality standards, a process where EPA, the State, and other stakeholders will have opportunities to seek clarification or adjustment. Moreover, it is also noted that in 2002 the Pueblo set forth the then current uses for the water that flows into it on the Rio Grande. However, the Pueblo, now and in an effort to promote selected irrigation uses, at times wholly dries up the Rio Grande below the Isleta diversion, thus precluding the Pueblo from meeting any of its own 2002 stated existing or designated uses below the diversion points. As such, as part of the Pueblo's next reconsideration of its water quality regulation, the Pueblo and EPA should update, and more accurately state, the relevant uses for each of the segments within the Pueblo, and the dates or times when those uses apply.

As a stakeholder and permittee, the Water Authority seeks to work cooperatively with the EPA, the Pueblo of Isleta, and other stakeholders to better understand and coordinate the operations on this segment of the Rio Grande. Because there are many perspectives that need to be considered, the Water Authority strongly recommends that the reinterpretation be delayed until after PIWQS are reviewed in the next Triennial Review process. Instead of debating the implementation during a permit renewal process, these types of issues should be discussed and evaluated during development of implementation procedures for PIWQS. Although references to such a document was made in the 2005 permit record, EPA has not provided such a document to the Water Authority for review or use.

The Water Authority provides additional details about the general issues raised in this letter and additional comments on certain specifics of the fact sheet and the proposed permit in the attachment.

In conclusion, the Water Authority stresses that with the current proposed permit conditions, EPA's inconsistent and unsupported approach to its re-interpretation of the PIWQS for critical low flow, mercury criteria and salinity standards is arbitrary and capricious. These changes should not be incorporated until after PIWQS undergo a Triennial Review and implementation procedures are established. In addition, the Water Authority comments that limitations for ammonia and total inorganic nitrogen should be retained in the permit using a statistically valid critical low flow.

Thank you again for giving us the opportunity to bring these matters to EPA's attention. The Water Authority welcomes an opportunity to speak with EPA Region 6 further about all these matters.

Sincerely,

John M. Stomp III, P.E.
Chief Operating Officer

cc: Bruce Yurdin, Water Protection Division Director, New Mexico Environment Department
J. Robert Benavides, Governor, Pueblo of Isleta

Attachments

ATTACHMENT

Albuquerque Bernalillo County Water Utility Authority Comments on February 23, 2018 Proposed National Pollutant Discharge Elimination System Permit for the Southside Water Reclamation Plant (Permit NM0022250)

The Albuquerque Bernalillo County Water Utility Authority (Water Authority) reviewed the February 23, 2018 proposed National Pollutant Discharge Elimination System (NPDES) permit and fact sheet prepared by U.S. Environmental Protection Agency (EPA) Region 6 for the Southside Water Reclamation Plant (SWRP). The EPA proposed to make several changes to the permit conditions and underlying assumptions. The Water Authority submits the following comments on the proposed conditions. The comments are organized as follows:

I. Critical Low Flow
II. Revised Mercury Effluent Limitations
III. New Salinity Parameter Effluent Limitations
IV. Other Issues
V. Additional Proposals

I. Critical Low Flow

The critical low flow used to implement Pueblo of Isleta Water Quality Standards (PIWQS) should be the four consecutive day flow that occurs with a frequency of once in three years (4Q3) or another statistically valid critical low flow based on flow measured by the U.S. Geological Survey (USGS) at Central Avenue Bridge (Gage # USGS 08330000). EPA's current proposal regarding selection of the critical low flow is arbitrary and capricious for the following reasons:

1. EPA has been inconsistent with the critical low flow used in the last three permit cycles (2005, 2012 and proposed 2018), although the PIWQS have not changed since 2002.
2. The "all flows at all times" standard should be based on statistically valid flow measurements. Critical low flows of zero cubic feet per second (cfs) and 53 cfs are not valid for calculating water quality based effluent limitations.
3. The operations of the Rio Grande are extremely complex. The actual flow realized by Pueblo of Isleta is higher than that suggested by flows at Central Avenue, due to water received through diversions that discharge to the Rio Grande within Isleta Pueblo's boundary.
4. Low flows measured in September 2013 were due to the high rate of diversions.

The EPA correctly notes in the 2018 fact sheet that the Water Authority's permit is subject to legal requirements under the federal Clean Water Act and the laws of New Mexico, and that the Water Authority's discharges (or the discharges of any other permittee anywhere upstream of the Pueblo of Isleta) must not lead to violations of the Pueblo of Isleta's water quality standards. As EPA summarized in the fact sheet:

"The Pueblo of Isleta has been approved to have treatment in the same manner as a state as contained in 40 CFR 131.8. The general and specific stream standards for the Pueblo of Isleta (PI) are provided in Surface Water Quality Standards (PIWQS) amended March 18, 2002, Tribal Resolution 02-064, approved by EPA on July 22, 2005. This latest WQS was used in the previous permitting renewal. ... PIWQS Section

I.H states: "Criteria specific to a designated use shall be protected at all times and at all flow rates."'

For over 13 years, the Pueblo of Isleta has not changed its water quality standards and yet the basis for critical low flow has changed with each of the three permit renewals during that time. With the current draft, EPA again reinterprets and changes the method for interpreting Pueblo's standard without any legal basis for that reinterpretation. In the current permit draft the "all" as used in that flow rates standard is contrary to all prior interpretation, used to mean the isolated one-day, one-time lowest flow with no presented statistical or scientific basis. However, neither the Pueblo of Isleta, nor EPA previously, nor other permit holders on this segment of the river, have ever so interpreted this standard in this way.

The Water Authority employed Jacobs Engineering Group Inc. (Jacobs) to evaluate the critical low flow of the Rio Grande and explain the complexities of the operations of the Rio Grande in this stretch of the river. As set forth in the technical memorandum by Jacobs (See Appendix 1), the bases for the critical flows to implement the Pueblo of Isleta Water Quality Standards in permit limitations differed over the last three permit terms.

The Pueblo of Isleta received fact sheets and draft permits for the 2005 and 2012 permitting cycles. The Pueblo of Isleta commented on various aspects of the proposed permits.[1] (See Appendices 2, 3, 4 and 5) For the 2005 permit, the Pueblo of Isleta commented that zero low critical flow was appropriate. (See Appendix 6) In the case of the 2012 permit, the Pueblo of Isleta did not comment on the critical flow, thereby agreeing with EPA's use of the 4Q3 as the critical low flow. No other commentator has ever suggested that the EPA's and Pueblo's interpretation of the Pueblo's standard was in any way incorrect. (See responses to comments in Appendices 3 and 5)

To add to the inconsistency, EPA allowed use of the Qs4D flow for determining applicable effluent limitations for the 2005 permit. This four day running average river flow was justified to assure data accuracy during low flow periods as the gage readings could be off due to the meandering river flow at the river gage. Based on the Response to Comments, both NMED and the Pueblo of Isleta agreed that the flow could be calculated as a four day average.[2] The averaging of measured flow to determine a critical flow rate was acceptable in 2005. Then in 2012, EPA changed course and stated that the Qs4D flow was not valid.

As set forth both in more detail below and in the Jacobs technical memorandum, the conditions of and the operations on this segment of the Rio Grande are complex. There are many dischargers to the river in the State of New Mexico that might be bound to meet the same regulatory limits as those proposed for the Water Authority SWRP. None of those dischargers are anywhere noted in EPA's materials; and there are similar omissions for diversions, including those of the Pueblo of Isleta that affect existing and designated uses of the river's waters.

In 2005, EPA acknowledged the specific circumstances of this stretch of the River as being: "...the highly modified nature of the Rio Grande above the effluent discharge point including the segregation of irrigation return flows to the irrigation canals creating an irrigation season deficit for flows to the river and the upstream impoundment of the Rio Grande at the Cochiti Reservoir and the management of releases

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[1] EPA noted in the response to comments that the Pueblo of Isleta submitted 10 comments on the 2004 draft permit and five (5) comments for the 2011 draft permit. See Response to Comments documents prepared February 10, 2005 and August 28, 2012. (Appendices 3 and 5)

[2] "Response #19: The EPA has changed the definition of daily minimum flow from a single day to a four day average of river flow data, after the telephone conversation with NMED and the Pueblo of Isleta held on August 6, 2004." Page 8 of the February 10, 2004 Response to Comments (See Appendix 3)

from this impoundment."[3] Now in 2018, although the specific circumstances haven't changed, EPA proposes to include a critical low flow that is based on another interpretation of the PIWQS.

Understanding how the river operates is necessary in order to determine the appropriate critical low flow. Based on the combined river and irrigation canal network and actual river operations in 2013, the critical low flow EPA proposes to use is not representative of the total flow realized in the Rio Grande as it runs through the Pueblo of Isleta. (See Appendix 1) The Water Authority objects to the current interpretation of existing standards.

Neither zero cfs nor 53 cfs are the appropriate flow rates to use as the critical low flow.[4] (See Appendix 7) Since 1997, based on measurements at the Central Avenue Bridge (USGS gage 08330000), the reported low has never been zero cfs. EPA proposes to use 53 cfs as the critical low flow rate in this draft to determine effluent limits based on Pueblo of Isleta Water Quality Standards. This is the lowest flowrate measured at the gage between 1997 and 2017, an isolated day in September 2013. There are several issues pertaining to the use of this flow rate:

1. According to the USGS, the low flow value of 53 cfs is not an actual measured flow, but an estimated value. Permit limitations should not be based on estimated figures.
2. This number reflects the flow on a single day; however, it was then used to calculate the 30-day average limits. The 30-day average limits were then multiplied by 1.5 to determine daily maximum limits. Using one single day's flowrate to calculate reasonable potential (RP) and effluent limitations is not appropriate for parameters that have a longer-term (chronic) impact. The use of a flow rate that captures more than one day, such as the 4Q3, is statistically and scientifically more appropriate and consistent with the assumptions built into criteria to protect against chronic impacts. Further, the use of the 4Q3 standard comports with EPA's previous understanding, of the applicable legal standard.
3. As mentioned above, use of the running average river flow was justified to assure data accuracy during low flow periods as the gage readings could be off due to the meandering river flow at the river gage. In fact, the discharge data from the USGS Rio Grande at Central Avenue Bridge gage confirms that this one extreme low flow is not representative of the river's flow through Isleta Pueblo. (See Appendix 1) The dataset used by EPA (September 1997 through September 2017) contains more than 7300 daily flow measurements for that gage. The flow is highly variable. (See Appendix 1) Only 11 of those daily flow results (0.16 percent) were below 100 cfs. Thus, nearly 99.9% of the time, the discharge was above 100 cfs. (See Appendix 1)

In addition in September 2013, the situation was highly unusual, as a significant amount of the flow from the Rio Grande, upstream of the SWRP discharge, was being diverted. This created an artificially low flow below Angostura. The Pueblo of Isleta was a beneficiary of a significant portion of that diverted water, and thus was not impacted as extremely as the flow rate indicates. (See Appendix 1, Figure 5)

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[3] From page 7 of EPA's March 31, 2005 final permit decision and response to comments document (Response #18, 2nd paragraph) (Appendix 3)

[4] Tung Nguyen, EPA Region 6 Permit Writer, wrote in a November 28, 2017 email to Ramona Montoya, Pueblo of Isleta, that he did not have "supporting document/information to continue the zero (0) flow rate, which was used in the previous permit."

It is our understanding that the Pueblo of Isleta is about to reconsider their water quality standards, a process where EPA, the State, and other stakeholders will have opportunities to seek clarification or adjustment. Moreover, it is also noted that in 2002 the Pueblo set forth the then current uses for the water that flows into it on the Rio Grande. However, the Pueblo, now and in an effort to promote selected uses, at times wholly dries up the Rio Grande below the Isleta diversion, thus precluding the Pueblo from meeting any of their 2002 stated existing or designated uses below the diversion points. This suggests that, as part of the Pueblo's next reconsideration of its water quality regulation, the Pueblo and EPA should update and more accurately state the relevant uses for each of the segments within the Pueblo, and the dates or times when those uses apply.

The Water Authority seeks to work cooperatively with the EPA, the Pueblo of Isleta, and other stakeholders to better understand and coordinate the operations on this segment of the Rio Grande. Because there are many perspectives that need to be considered prior to another reinterpretation of the PIWQS, the Water Authority strongly recommends that the reinterpretation be delayed until after PIWQS are reviewed in the next Triennial Review process. Interpretation of standards provisions should be discussed through development of implementation procedures, not done on a case-by-case basis through permit renewal. In fact, these types of issues should be discussed/debated/evaluated during development of implementation procedures for PIWQS. Although references to such a document was made in the 2005 permit record, EPA has not provided such a document to the Water Authority for review or use.

For the above reasons, a different flow value is justified. For this new proposed permit, EPA has without explanation or support changed its approach to implementing the PIWQS. As noted above, in the Fact Sheet issued in 2011 for the current NPDES permit (attached July 29, 2011 proposed permit and fact sheet, Appendix 4), EPA used the minimum average four consecutive day flow that occurs with a frequency of once in three years (4Q3) as the critical low flow. The Fact Sheet (Section V.C.5 on page 11 of 24) explains: "To determine impacts of water quality based pollutants and its compliance with PI WQS, the permit will evaluate the ABCWUA discharge after mixing with the 4Q3 identified above." The Pueblo of Isleta did not comment on the critical flow conditions of the permit. Additionally, in the response to comments found in the final permit from 2012, the 4Q3 is used to show how the limits based on PIWQS were determined. Because it is the applicable legal standard, the use of the 4Q3 remains appropriate for this permit term.

II. Revised Mercury Effluent Limitations

EPA proposed to revise the permit limitations for total mercury based on the PIWQS wildlife usage criterion. The wildlife criterion was added in response to a comment by the U.S. Fish and Wildlife Service (FWS) during the 2002 Pueblo of Isleta WQS revisions[5]. Since it was added, the wildlife criterion for total mercury has never been used to establish a permit limit. The reason for implementation at this time is not clear. The revised effluent limitations for total mercury should be removed for the following reasons:

1. There was no opportunity for comment on the basis for the adopted wildlife usage criterion as they were a result of the comments received during the public comment period.
2. The wildlife usage criterion for mercury is not valid as it does not match what the criteria developed to protect wildlife in the Great Lakes Water Quality Initiative adopted at 40 CFR 132 (See Appendix 11) as noted in the Pueblo of Isleta's Responsiveness Summary for the

[5] See Proposed Amendments to Pueblo of Isleta Water Quality Standards, July 24, 2001 comments by FWS and final Pueblo of Isleta Surface Water Quality Standards. (Appendices 8, 9 and 10)

PIWQS development (Appendix 12). The assumptions used in calculating the criteria for the Great Lakes may not be appropriate for the Middle Rio Grande.

3. The criterion has been specified in the PIWQS since 2002, but never been implemented in the two previous permits issued in 2005 and 2012. EPA did not provide an explanation why it was included in the proposed permit.

The proposed effluent limitations for mercury are not based on a valid criterion. After review of the record for the adoption of the PIWQS in 2002, it is clear that the adopted wildlife usage criterion for mercury is wrong. As noted in the response to comments, the Pueblo agreed to adopt the criteria based on the Great Lakes Water Quality Initiative (GLWQI) at 40 CFR 132 based on a comment from the FWS. The GLWQI criterion for mercury is 0.0013 ug/L. However, the Pueblo of Isleta adopted 0.0011 ug/L as the criterion. This figure is not consistent with the justification in the response to comments. Therefore the current figure is an error. The PIWQS procedures for addressing errors should be followed (PIWQS Section I.K). In the interim, the criterion for mercury for protection of wildlife is not valid and should not be applied.

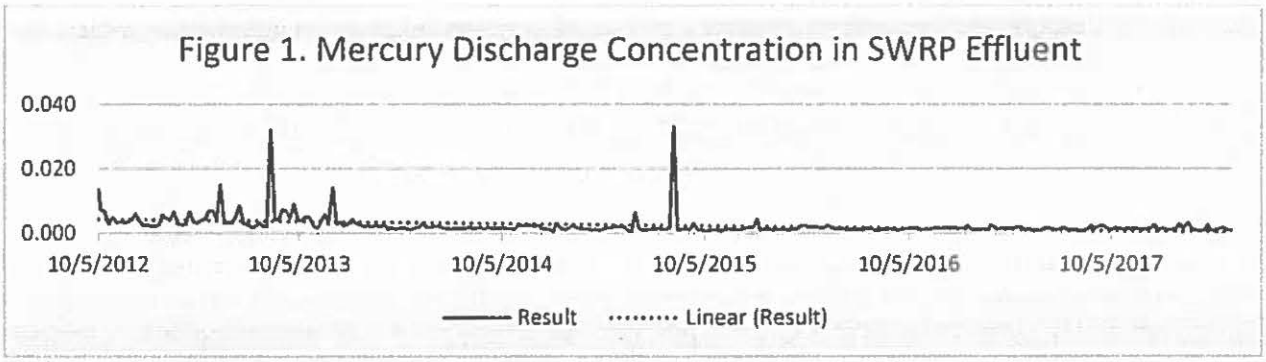
The wildlife usage criteria were added to the PIWQS as a response to a comment, without an opportunity for public comment. No one was afforded the chance to look at the scientific validity of these criteria. There are many differences between the Rio Grande and the Great Lakes that should have been explored as to the validity of applying one standard to such different places. The spirit of the public participation provisions (40 CFR 25) imply that for significant changes, additional public input is appropriate. Neither EPA nor the Pueblo identified the addition of wildlife criteria as significant. The fact that a permit limit is now being determined based upon this criterion clearly indicates that this was a significant change that should have required further public participation.

If EPA continues to deem the wildlife usage criterion as valid, there are other factors that need to be reviewed. In determining reasonable potential (RP) to exceed a water quality based effluent limitation, instream concentrations are determined by the following formula:

$$\text{Instream Waste Concentration in ug/L} = ((FQa \times Ca) + (Qe \times Ce \times 2.13)) / (FQa + Qe)$$

Where:
F is the dilution factor,
Qa is the flow of the river upstream of the discharge,
Ca is the ambient concentration of mercury upstream of the discharge,
Qe is the effluent discharge flow, and
Ce is the average effluent concentration

In the proposed permit, EPA used an average effluent concentration value for mercury of 0.003 ug/L to determine RP. This value is incorrect. The average effluent concentration of mercury is 0.001 ug/L, as submitted in Appendix D of the permit application. The 0.001 ug/L value represents the average concentration of mercury discharged during the last year. As shown in the Figure 1 below, discharge concentrations of mercury have been decreasing since 2012. This is a result of the Water Authority changing its Sewer Use and Wastewater Control Ordinance in 2009 to require amalgam separators on dental offices.



If the correct value of Ce = 0.001 ug/L and the 4Q3 flow rate of 143 cfs are used in the calculation of RP, the instream concentration is 0.0010 ug/L which is below the lowest water quality criterion, the adopted Pueblo of Isleta Wildlife Usage criterion of 1.1 ng/L (0.0011 ug/L) and below the Great Lakes Water Quality Initiative Wildlife criterion of 1.3 ng/L (0.0013 ug/L)[6]. Because the instream concentration is below the criterion, no RP exists, and no limit is required. Accordingly, the discharge limitations on mercury should be removed from the proposed permit.

If for any reason mercury limits were to be retained, the limits from the current permit should be retained and the monitoring frequency reduced to monthly.

It is not likely, and in fact is exceptionally unlikely, that a removal technology can be designed, funded, and implemented within the proposed three-year compliance schedule for mercury. Any removal technology is likely to cost in the tens of millions of dollars and require significant capital planning. If any such limits were to be retained, the Water Authority may need to discuss some form of Consent Order with EPA to give the relevant agencies and stakeholders time to address how best to meet the new requirement. As just one example, a source reduction plan might be appropriate, in contrast to imposing rather new strict effluent limits. This has been done in the Great Lakes (EPA Region 5) by requiring mercury Pollutant Minimization Programs.

III. Salinity/Mineral Quality (Total Dissolved Solids, Chlorides, and Sulfates)

EPA proposed effluent limits for TDS, Chlorides and Sulfates based on application of the PIWQS General Standard for Salinity/Mineral Content.

> *Salinity/Mineral Quality (total dissolved solids, chlorides, and sulfates): Existing mineral quality shall not be altered by municipal, industrial, and instream activities, or other waste discharges so as to interfere with the designated or attainable uses for a water body. An increase of more than 1/3 over naturally-occurring levels shall not be permitted.* (PIWQS Section III.K)

It is wholly unsupportable, or at the least very premature, to impose limitations based on the above general standard for the following reasons:

1. Neither the Pueblo of Isleta nor EPA has yet developed, much less promulgated, any Implementation Procedures for consistent implementation of the general standard.
2. Even though the Pueblo's general standard has been in place since 2002, EPA did not impose effluent limitations for TDS, Chlorides or Sulfates in any previous permit.

[6] See Appendix D of 40 CFR 132 (Appendix 11).

3. EPA has demonstrated neither that an excursion of the general standard has occurred nor that there is reasonable potential for an excursion to occur due to the SWRP discharge.
4. Once implementation procedures have been established, effluent limitations may not be necessary.
5. Current, EPA-approved, New Mexico segment-specific water quality standards criteria are being met.

Pueblo of Isleta Implementation Procedures for consistent implementation of the general standard have not been developed. 40 CFR 131.11(a)(2) requires:

> *"Where a State adopts narrative criteria for toxic pollutants to protect designated uses,* ***the State must provide information identifying the method by which the State intends to regulate point source discharges of toxic pollutants on water quality limited segments based on such narrative criteria.*** *Such information may be included as part of the standards or may be included in documents generated by the State in response to the Water Quality Planning and Management Regulations (40 CFR part 130)." (bolding and underlining added)*

The PIWQS do not contain implementation procedures that describe how to apply narrative criteria to regulate point sources. Such procedures are not posted on the Pueblo of Isleta website nor are any referenced in the EPA Fact Sheet. Additionally, no agency has explained, and it is not clear, which designated uses the salinity standard is intended to protect. Such procedures are necessary to ensure consistent and appropriate application to protect the standard.

The terms used in the general standard are not defined. Although a formula approach to complying with the standard is specified, critical terms for demonstrating compliance are not defined, thus rendering implementation of this standard difficult if not impossible, especially to discharges miles upstream of the Pueblo of Isleta boundary. Specifics for the number of data points, appropriate location for measurement, and variation in seasons during which to collect the data, among other specifications, are needed in order to consistently apply this standard. Examples of the need for implementation procedures are:

- EPA calculated a level for "background" but the PIWQS uses the term "naturally-occurring levels". The PIWQS do not contain a definition of "naturally-occurring levels" or "background," nor are there established policies or procedures for determining "naturally-occurring levels". Without established definitions, it is unclear what compliance with the standard might require, or whether compliance with the standard can ever be achieved.

- In the tables within Section V.C.5.f of the Fact Sheet, EPA did not explain the location for the data labeled as "Ambient Conc., mg/L (3/2014 to 10/2014)" and how that location meets the definition of "naturally-occurring". The values EPA used as Ambient Concentrations are taken from the discharge of the SWRP, miles upstream of the Pueblo, and upstream of other inflows. These EPA stated values are not concentrations in the Rio Grande.

EPA did not impose effluent limitations for TDS, Chlorides or Sulfates in previous permits although the Pueblo's general standard has been in place since 2002.
EPA states in the Fact Sheet that the 2005 approved version of the PIWQS was used in the previous SWRP permit renewal (2012). The limits for salinity parameters were **not** included in that permit.

Neither in the Fact Sheet nor elsewhere does EPA provide any explanation why the limitations are necessary now when the limits were not necessary in the current permit issued in 2012. (And because EPA fails to provide any explanation at all, no stakeholder is being given a real opportunity to comment on the bases, if any, for the new parameters.) Neither the Pueblo, nor any other commenter, commented about the lack of TDS, Chlorides and Sulfates limits in the 2005 or 2012 permits.

EPA has neither demonstrated that an excursion of the general standard has occurred nor that there is reasonable potential for an excursion to occur due to the SWRP discharge.
Pursuant to 40 CFR 122.44(d)(1), the permitting authority shall impose water quality based effluent limitations when it determines that pollutants "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." The standard requires that the activity not alter the mineral content so as to interfere with the designated or attainable uses for the water body. EPA has no explanation for whether or how the discharge is interfering with the designated or attainable uses for the water body. There is no information available in the Fact Sheet, the Pueblo of Isleta website or the State of New Mexico website, indicating that this portion of the Rio Grande is impaired for any designated uses due to salinity. Further, it is not clear which designated uses the salinity standard is protecting. The SWRP discharge is meeting aquatic life uses as demonstrated by the more than 20 quarterly Whole Effluent Toxicity testing results that indicate the SWRP discharge is not toxic to aquatic life. In addition, the average concentration of the salinity parameters measured in the SWRP discharge are below recommended Safe Drinking Water program secondary maximum contaminant levels (Secondary MCLs) for Chloride and Sulfate and slightly above the Secondary MCL for TDS. The Secondary MCLs are applied to address aesthetics and not health effects. Based on these levels, impacts to human health from a surface water quality perspective are negligible.

Further, as previously noted, the SWRP's discharge is miles upstream of the Pueblo's border. There is no implementation procedure in which to determine where the Pueblo's standard applies.

Once implementation procedures are established, effluent limitations may not be necessary.
Implementations procedures, once they are developed, may demonstrate that effluent limitations are not necessary. If that is the case and EPA has previously (in this permit) imposed effluent limitations for the salinity parameters, then antibacksliding may require that the overly stringent EPA generated effluent limitations must be retained in future permit. This quandary can be avoided by giving the relevant agencies time to develop the required, and legally necessary, implementation procedures.

Current, EPA-approved, New Mexico segment-specific criteria are being met.
The SWRP discharge complies with the State of New Mexico segment-specific criteria for TDS, Chloride and Sulfate for the receiving water segment (20.6.4.105 New Mexico Administrative Code). The segment-specific criteria are applicable when the mean monthly flow in the river is over 100 cfs. These segment-specific water quality criteria have been in the NMWQS since before 2005. The State of New Mexico is required to take into consideration downstream standards as required by 40 CFR 131.10(b):

> *...in designating uses of a water body and the appropriate criteria for those uses, the State shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.*

EPA approved the NMWQS and amendments to the standards numerous times since 2005, most recently in 2013 and 2017. EPA has never raised a concern that those standards did not meet downstream salinity standards. If the NMWQS did not provide for attainment of the PIWQS, then EPA would not have approved the NMWQS.

Additionally, there is a nearby power plant, the Rio Bravo Generating Station with a recently issued NPDES permit (Appendix 13). This power plant discharges into the same stretch as the Water Authority. The PNM discharge goes into the Tijeras Arroyo which meets the Rio Grande approximately 0.5 miles downstream of the SWRP discharge. This PNM permit, issued by the EPA, does not have any salinity-based limits. The current Municipal separate sanitary sewer storm water (MS4) general permit requires that permittees meet PIWQS but the EPA has not required any salinity monitoring from the MS4 permittees. (Appendix 14) The permit for the Rio Rancho WWTP #2 was issued also in 2016. It contains only a limit for TDS. (Appendix 15) Although this discharger discharges to a stretch of the Rio Grande that borders another Pueblo, the discharge should also be evaluated to protect other downstream standards. It is also important to note that none of these permits include limitations for mercury. The EPA therefore is not implementing similar water quality standards on similarly located dischargers in a uniform manner. This further indicates that there is no clear implementation procedure. The different ways that salinity and mercury have been implemented indicate that the limits in this proposed permit are arbitrary and capricious.

The imposition of effluent limitations for salinity parameters is, at the least, premature. Instead of imposing limitations based on assumptions or guesses, EPA should allow time for the Pueblo to develop implementation procedures as required in 40 CFR 131.11(a)(2). The procedures will provide clarity and consistency to determine the type and amount of data necessary to demonstrate compliance. The PIWQS have not been modified since 2002. Because there has been no water quality impairment, it is appropriate for EPA to wait until implementation procedures are developed before imposing effluent limitations for the salinity parameters. Once implementation is clarified, the Water Authority could work with the Pueblo to obtain additional information on the salinity of the river by performing a salinity study. This study would ensure that the correct data is being used to determine whether there is an impairment and provide the required data points to calculate compliance.

VI. Other Issues

In addition to the above general issues, the Water Authority provides comment on certain specifics of the Fact Sheet and the proposed permit, following the sequences presented by the EPA.

Fact Sheet Comments (not mentioned above)

Section III Effluent Characteristics

This section includes two violations that did not occur. There is an incorrect violation for pH on 5/31/15 and an incorrect mercury violation on 3/31/16. These violations are not found on the EPA Enforcement and Compliance History Online (ECHO) database. If these incorrect values were used in determining or influencing permit limits, then these limits should be re-evaluated.

Section V.B.2 Effluent Limitation Guidelines

An 85 percent removal technology based effluent limit is proposed for CBOD5 although the

proposed concentration and loading limits are significantly more stringent than the technology based limits specified in 40 CFR 133. As the fact sheet states: "The previous permit established CBOD limits based on water quality concerns..." Because the relevant limits are water quality based and not technology-based, the proposed percent removal is not appropriate. The combination of the minimum Dissolved Oxygen effluent limitation and the loading and concentration limitations for CBOD ensure significant reduction in oxygen demand (higher dissolved oxygen levels in the effluent).

Section V.C.5.a pH

The Fact Sheet describes the pH limits as the same as the previous permit, 6.6 – 9.0 s.u.. Section A.1 of Part I of the proposed permit list the maximum pH discharge limitation as 8.8 s.u. The permit should be reconciled with the fact sheet and the upper limit changed to 9.0 s.u..

Section V.C.5.c Toxics

See discussion regarding mercury effluent limitations above.

Section V.C.5.f Salinity/Mineral Quality (Total Dissolved Solids, Chlorides, and Sulfates)

See discussion regarding salinity parameters above.

Section V.C.5.g. Total Inorganic Nitrogen

Limitations for Total Inorganic Nitrogen based on a statistically valid critical low flow should be retained in the permit.

Section V.C.5.h. Ammonia

Limitations for ammonia based on a statistically valid critical low flow should be retained in the permit.

Section V.D MONITORING FREQUENCY FOR LIMITED PARAMETERS

The table in this section states that mercury sampling may be done via a grab sample. This conflicts with the permit effluent limits (Part I.A.1) which lists the mercury sample type as being a 24-hr composite. The language should match in both places as grab sampling. Collection of low level mercury via grab is recommended by the method and reduces the chance of cross contamination of the sample.

NPDES Permit Comments (not provided above)

Part I.A LIMITATIONS AND MONITORING REQUIREMENTS

The pH upper limit of 8.8 s.u. should be changed to match the fact sheet limit of 9.0 s.u.

The 30-day average limit for E. coli bacteria should be a geometric mean, not an average. The loading limit for E. coli bacteria should be expressed in MPN/day.

As stated previously, the limits for TDS, Chlorides, and Sulfates should be removed.

As stated previously, the mercury limit should be removed or changed based on using the correct critical low flow value and submitted application data or the current limits maintained. If limits are included, the monitoring frequency should be reduced to monthly.

The proposed permit has a weekly measurement frequency for the percent removal requirements. However, 40 CFR 133.101(j) defines "Percent removal" as "a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period." A weekly percent removal limitation is inconsistent with the regulation. Therefore, the requirement for TSS (and CBOD5, if retained) should be changed to monthly.

The formula for percent removal is incorrect and must be corrected. Additional parentheses are required. The correct formula is below:

([average monthly influent concentration (mg/L) – average monthly effluent concentration (mg/L)]/[average monthly influent concentration (mg/L)]) x 100

Part I.D OVERFLOW REPORTING

Minor leaks, discharges, overflows and spills within the boundary of the SWRP that do not migrate outside of the process area should be clarified as not an overflow and as not needing to be reported.

The overflow reporting states a phone number for notifying EPA Region 6. The standard conditions in Part III.D.7 state that Region 6 is to be notified via email. EPA should clarify the preferred notification requirements.

The proposed permit includes one page of Pueblo of Isleta Emergency Response Contact Information. It is not clear what the EPA is expecting to be done with this information. This information was taken directly from the Water Authority's Overflow Emergency Response Plan (OERP). In the OERP, the process for calling the numbers in order until a person is reached and emailing all the contacts in the attachment only occurs for overflows that reach an MRGCD facility or the Rio Grande. In order to contact the Pueblo of Isleta for overflows that do not reach the Rio Grande or an MRGCD facility a single phone number or email address where a message can be left should be made available.

V. Additional Proposals

Because of the challenges with any requirement to further reduce mercury levels in the SWRP and the concern with the validity of the mercury wildlife usage criterion, instead of the imposing a more stringent mercury limit at this time, the Water Authority proposes to work with EPA to conduct a four-year study and data gathering effort regarding mercury in the Middle Rio Grande stretch during the next permit term. The current mercury limit should remain in place until the study is completed and the results evaluated.

Such a study would include:

- Collection of data and compilation of existing data on upstream sources of mercury – what is going on with mercury in the Middle Rio Grande system
- Collection of fish tissue samples
- Evaluate potential hot spots for legacy mercury in the Water Authority collection system and possible locations to clean interceptors and monitor influent concentrations
- Additional source reduction activities where appropriate

This information would provide information on sources across the watershed. It also provides time for the Pueblo to conduct its Triennial Review.

As stated above, the imposition of effluent limitations for salinity parameters is, at the least, premature. Instead of imposing limitations based on assumptions or guesses, EPA should allow time for the Pueblo to review the PIWQS and to develop implementation procedures. The procedures will provide clarity and consistency to determine the type and amount of data necessary to demonstrate compliance. Because there has been no water quality impairment, it is appropriate for EPA to wait until implementation procedures are developed before imposing effluent limitations for the salinity parameters. Once implementation is clarified, the Water Authority will work with the Pueblo to obtain additional information on the salinity of the river by performing a salinity study. This study would ensure that the correct data is being used to determine whether there is an impairment and provide the required data points to calculate compliance.

Appendices

1. Technical Memorandum on Evaluation on 2018 Proposed SWRP NPDES Discharge Permit. Jacobs Engineering Group Inc. June 22, 2018.
2. EPA Fact Sheet and Proposed Permit for SWRP NPDES Permit # NM0022250, June 25, 2004
3. EPA Final Permit and Response to Comments for SWRP NPDES Permit # NM0022250. March 31, 2005
4. EPA Proposed Permit and Fact sheet for Southside Water Reclamation Plant NPDES Permit # NM0022250. July 29, 2011
5. EPA Final Permit and Response to Comments for NPDES NM0022250. August 30, 2012
6. Pueblo of Isleta Comments on 2004 Proposed NPDES permit for SWRP. July 21, 2004
7. Email from Tung Nguyen, EPA Region 6 Permit Writer to Ramona Montoya, Pueblo of Isleta Environmental Program Manager, stating that zero cfs low flow is not appropriate. November 28, 2017
8. Pueblo of Isleta Proposed Amendments to Water Quality Standards.
9. U.S. FWS comments on 2001 proposed PIWQS. July 24, 2001
10. Pueblo of Isleta Surface Water Quality Standards. Amended March 18, 2002
11. 40 CFR 132, Appendix D – Great Lakes Water Quality Wildlife Criteria
12. Pueblo of Isleta Responsiveness Summary for 2001 PIWQS revisions.

13. EPA Final Permit and Response to Comments for PNM Rio Bravo Generating Station NPDES Permit # NM0030376. April 8, 2016
14. EPA Middle Rio Grande Watershed Based MS4 General Permit. December 22, 2014
15. EPA Final Permit and Response to Comments for Rio Rancho WWTP #2 NPDES Permit # NM0027987. May 31, 2016